

Gaylordsville Bridge (Bridge #556)
Spanning the Housatonic River on U.S. Route 7
New Milford
Litchfield County
Connecticut

HAER No. CT-32

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Mid-Atlantic Regional Office
National Park Service
U.S. Department of the Interior
Philadelphia, Pennsylvania 19106

HISTORIC AMERICAN ENGINEERING RECORD

Gaylordsville Bridge
(Bridge #556)

HAER No. CT-32

Location: Spanning the Housatonic River on U.S. Route 7
Village of Gaylordsville, Town of New Milford, Litchfield County, Connecticut

UTM: 18.626270.4611520
Quad: Kent, Connecticut

Date of Construction: 1926; Major repairs done in 1963 and 1978

Builder: Berlin Construction Company, Berlin, Connecticut

Present Owner: State of Connecticut Department of Transportation

Present Use: Vehicular traffic

Significance: The Gaylordsville Bridge is a single span steel riveted Parker through truss, a variation of the Pratt truss, one of the most popular steel bridges of the late nineteenth-early twentieth century. This bridge is unusually long for a Parker truss.

Project Information: This document was undertaken in October 1987 in accordance with the Memorandum of Agreement by the Connecticut Department of Transportation as a mitigation measure prior to replacement of the bridge superstructure.

Keith Hall
Transportation Planner
Bureau of Planning
Connecticut Department of Transportation
Wethersfield, Connecticut

January 1988

A. Physical History

Gaylordsville Bridge (Bridge #556) carries Route #7 over the Housatonic River in Gaylordsville, a village in the town of New Milford, Connecticut. The bridge is a single span steel riveted Parker through truss building in 1926 by the Berlin Construction Company, Berlin, Connecticut. The steel truss contains eleven 20' 6" panels and is 225.5 feet long overall and 28 feet wide between chords. The single span, supported by two concrete abutments, is unusually long for a Parker truss. The two most popular steel truss types used in this country in the last half of the nineteenth century and the first part of the twentieth century were the Warren and Pratt trusses, and variations of these. The Parker is one of the more popular variations of the Pratt truss, similar to the Pratt in having vertical members in compression and diagonal members in tension, but differing in the shape of the top chord. In the Parker, the top chord is arched, which gives a stronger bridge than the Pratt without increasing the amount of material. One of the drawbacks of the Parker design was that the girder sizes were more varied, which increased the original cost of the bridge. In this case, however, the increase in length possibly more than compensated for the additional cost. Most Pratt trusses do not exceed a length of about 150 feet and more Parker trusses are under 200 feet [Comp 1977].

At both ends of the Gaylordsville Bridge, short concrete approach spans connect the bridge to the roadway. There are two 33-foot spans that are at the south side of the bridge and one 22.5-foot span at the northern end.

Since the bridge was constructed in 1926, there have been a number of repairs made to the bridge, some of them major. Although no documentation of early repairs was located, there were major concrete repairs made in 1963, at which time the steel railings were replaced, and the entire bridge repainted. In 1978, a number of stringers were replaced. At this point, the edges of the concrete pavement have deteriorated so that the reinforcing rods are showing in a number of places.

B. Historical Context

1. History of the Crossing

Although lands in New Milford were first purchased from the Indians in 1670, it was 50 years later before the area now known as Gaylordsville was settled. For the next 75 years, residents crossed the river at a ford about 100 feet downstream from the present bridge until, in 1803, the men of the community built one. Supported by two wooden piers, the bridge worked well for about ten years, until ice coming down the river during the flood seasons so weakened the piers that reconstruction was necessary. Some \$650.00 was raised by subscription, but this was only about half of what was needed and the town refused to grant the remainder. Somehow the bridge was rebuilt or repaired, because the next proposal to erect a new bridge came in 1832, but again the town of New Milford refused funds, saying "it is not expedient to erect free bridges over the Housatonic River, as it affords a facility in crossing to travelers residing out of the town which is seldom, if ever, reciprocated to the citizens of the town when they go abroad." The Gaylord's

Bridge Company was formed, granted a charter by the State Legislature in 1832, and built a bridge. By 1845, another bridge was needed, so more stock was sold and a new bridge was built, this time an open rather than covered one. The two span bridge cost \$2,812 and was supported by a single wooden pier in the river. In 1855, the sides were closed in for protection and, in 1857, a stone pier was built to replace the old wooden one in the middle of the river. About this time, the Harlem Valley Railroad was completed in New York and the lucrative tolls from freight being hauled to Dover, New York, stopped, but the company kept going until 1875, when unusually high waters swept the bridge away again. This time, the town of New Milford bought the property and rights of all three New Milford bridges which had been washed away and built new free bridges. The Gaylordsville Bridge remained intact for 51 years, until the State relocated the highway and built a new steel truss in its present location. In 1955, the bridge was completely inundated by flood waters but not washed away.

2. Berlin Construction Company (Builder)

The Berlin Construction Company is the historical successor to the Berlin Iron Bridge Company, which was started in 1868 as the American Corrugated Iron Company, making corrugated roofing panels. In the early 1870s, the company became involved in the manufacture of iron support trusses for the installation of its roofing products. In 1878, the Corrugated Metal Company, as the company was then known, acquired the manufacturing rights to William Douglas' lenticular bridge patents and began to fabricate wrought iron bridge trusses. Although lenticular trusses are a variation of the Pratt truss, they differ from other curved top bridge designs, such as the Gaylordsville Parker truss by having bottom chords which are mirror images of the top ones, making them much lighter in construction. Business was good and, in 1883, they changed the name of the company to the Berlin Iron Bridge Company. Because the lenticular design used less material than either the standard Pratt or Warren trusses, it became a fairly popular design, especially in New York and New England. Hundreds of these structures, ranging in size from under 30 feet to the 288-foot Raymondville, New York, span, were built during the next twenty years. By the turn of the century, the Berlin Iron Bridge Company was the largest structural steel fabricator in New England. The popularity of lenticular bridges began to decline, however, as engineering firms standardized on the more common Pratt and Warren configurations. Finally, in 1900, the American Bridge Company purchased the Berlin Company and moved it from its Connecticut location. When this happened, three former Berlin Iron Bridge Company executives formed the Berlin Construction Company to produce structural steel for different industrial projects, and many steel truss bridges were manufactured by this concern. Welding and high strength bolts have replaced the older riveted joints, but the company, now called the Berlin Steel Construction Company, still manufactures structural steel fabrications.

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Manuscript files of ConnDOT Bridge Section and Connecticut Archaeological Survey.

Consultant:

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LOCATION MAP

